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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,924	10/02/2000	Shy Cohen	204863	3782

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EXAMINER

NGUYEN, HAI V

ART UNIT PAPER NUMBER

2142

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/676,924

Applicant(s)

COHEN, SHY

Examiner

Hai V. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This Office Action is in response to the communication received on 04 May 2004.
2. Claims 1-23 are presented for examination.
3. Examiner has withdrawn the indication of the allowable subject matter of claims 20-23.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by **Bakshi** US patent no. **6,457,054 B1**.

6. As to claim 1, Bakshi, System For Reducing User-Visibility Latency In Network Transactions, teaches substantially the invention as claimed, including a method of bi-directionally communicating between an application residing on a first processor (*Fig. 5, item 2*) on a private computer network and an application residing on a second processor (*Fig. 5, item 4*) not on the private computer network, the communication path including a public computer network and a proxy server (*Fig. 6, item 36*) coupled to the

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private computer network and separating the private computer network from the public computer network, the method comprising:

establishing a first communication channel between the first processor and the second processor through the proxy server to allow the transfer of first messages from the first processor to the second processor, and the delivery of first message delivery acknowledgments from the second processor to the first processor (*Fig. 1; col. 2, line 51 – col. 2, line 30*); and

establishing a second communication channel between the first processor and the second processor through the proxy server to allow the transfer of second messages from the second processor to the first processor, and the delivery of second message delivery acknowledgments from the first processor to the second processor (*Fig. 1; col. 2, line 51 – col. 2, line 30*).

7. As to claim 2, Bakshi teaches, wherein the establishing of a first communication channel comprises transmitting a first HTTP-based "request" to the second processor via the proxy server, the first "request" including at least one of the first messages therein (*request packet, Abstract, col. 1, line 51 - col. 2, line 30*).

8. As to claim 3, Bakshi teaches, wherein the establishing of a second communication channel comprises transmitting a second HTTP-based "request" to the second processor via the proxy server to be parked at the second processor, the second "request" establishing a persistent HTTP connection between the first processor and the second processor through the proxy server (*Fig. 1; col. 2, line 51 – col. 2, line 30; Fig. 4, col. 4, line 40 col. 5, line 41*).

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9. As to claim 4, Bakshi teaches, further comprising receiving an HTTP-based "reply" from the second processor on the second communication channel, the HTTP based "reply" including at least one of the second messages therein (*Fig. 1; col. 2, line 51 – col. 2, line 30; Fig. 4, col. 4, line 40 col. 5, line 41*).

10. As to claim 5, Bakshi teaches, further comprising transmitting a third HTTP based "request" to the second processor via the proxy server in response to receiving the HTTP-based "reply", the third HTTP-based "request" containing an acknowledgment for the HTTP-based "reply" and further establishing a persistent HTTP connection between the first processor and the second processor through the proxy server (*Fig. 1; col. 2, line 51 – col. 2, line 30; Fig. 2, col. 3, lines 31-67; Fig. 4, col. 4, line 40 col. 5, line 41*).

11. As to claim 6, Bakshi teaches, wherein the first processor only receives an HTTP based "reply" from the second processor on the second communication channel when the second processor has at least one of the second messages to send to the first processor (*Fig. 1; col. 2, line 51 – col. 2, line 30; Fig. 2, col. 3, lines 31-67; Fig. 4, col. 4, line 40 col. 5, line 41*).

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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13. Claims 7-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bakshi** US patent no. **6,457,054 B1** in view of **Boyle** et al. US patent no. **6,119,167**.

14.

15. As to claim 7, Bakshi does not explicitly disclose, wherein the second HTTP-based "request" includes therein a request that the second processor transmit a reply after the expiration of a time period even if there are no second messages so that the first processor can assess a status of the connection thereto. Thus, the artisan would have been motivated to look to the related networking art for potential methods and apparatus for implementing the request including a request that the second processor transmit a reply after the expiration of a time period even if there are no second messages so that the first processor can assess a status of the connection thereto.

In the same field of endeavor, Boyle, related Pushing And Pulling Data In Networks, in an analogous art networked connection establishment, discloses that in

In some embodiments, messenger 154 assigns a time-to-live parameter MTTL (messenger time-to-live) to each notification received by the messenger. The MTTL may be different from the time-to-live assigned by servers 130 and used for cache 122. If a notification has been in a messenger queue longer than MTTL and the messenger has not been able to send the notification to the respective browser 134, the messenger deletes the notification from the messenger queue. Thus, if multiple header lists have been pushed by service 132 while the user device 120 was off, the header lists not delivered by the messenger for time MTTL will be deleted. The probability that outdated header lists will be pushed to device 120 will therefore be reduced.

In some embodiments, a server 130 may push a command to messenger 154 to delete one or more notifications from the messenger queues if the notifications have not been delivered to the browsers.

In some embodiments, for each data push notification, the messenger 154 deletes any undelivered notifications that have the same URL and are destined for the same browser 134.

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In some embodiments, a stock application on a server 130 sends stock prices to devices 120. A user may request the stock application (via the pull path 138) to push the price of a given stock when the price gets above or below a certain value. Alternatively, the user may request the application (via the pull path) to push the price at regular intervals of time, for example, every hour. In some embodiments, the stock application pushes the stock price via the SMS whenever the stock price changes. SMS stands for Short Message Service. This service is inexpensive or free in some networks.

In some embodiments, browser 134, messenger 154, browser proxy 150, and mail service 132 are products of Unwired Planet, Inc. of Redwood Shores, Calif. Devices 120 are model MA210 cellular phones available from Mitsubishi or model Duette cellular phones available from Samsung. Browser 134 is stored in the ROM of devices 120. The browser size is 60-130 KBytes.

The cellular phone also has 20-26 Kbytes of RAM of which about 14-20 Kbytes are used for cache 122. The RAM is non-volatile due to a built-in battery power source.

In some embodiments, the sequence numbers (DECKSEQ) are generated not by servers 130 but by link stations 124. A separate sequence number is kept for each browser 134. Station 124 increments the sequence number for each deck received for browser 134 by proxy 150 or messenger 154, and attaches the sequence number to the deck. Browser 134 discards any data, whether pushed or pulled, that have a lower sequence number than any data previously received by the browser even if the previously received data have a different URL... (*Boyle, col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15*).

Accordingly, it would have been obvious to one of ordinary skill in the networked data control art at the time the invention was made to have incorporated Bakshi's teachings with the teachings of Boyle, for the purpose of optimizing for the cost and latency parameters (*Boyle, col. 12, lines 1-10*).

16. As to claim 8, Bakshi-Boyle discloses, further comprising setting the time period to be less than two days (*Boyle, col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15; col. 13, line 50 - col. 14, line 3*).



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17. As to claim 9, Bakshi-Boyle discloses, further comprising setting the time period to be approximately five minutes (*Boyle, col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15; col. 13, line 50 - col. 14, line 3*).

18. As to claim 10, Bakshi-Boyle discloses, further comprising dynamically adjusting the time period based upon a connection time out closure controlled by the proxy server (*Boyle, col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15*).

19. As to claim 11, Bakshi-Boyle discloses, wherein the dynamically adjusting of the time period comprises: receiving a connection time out closure message from the proxy server (*Boyle, col. 6, line 25 – col. 7, line 36*); determining a first time between transmitting the second HTTP-based "request" and receiving a connection time out closure message from the proxy server (*Boyle, col. 6, line 25 – col. 7, line 36*); and calculating a new time period to be less than the first time and less than the time period (*Boyle, col. 2, line 55 – col. 3, line 40; col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15*).

20. Claim 12 corresponds to the computer readable medium claim of claim 1; therefore it rejected under the same rationale as claim 1.

21. As to claim 13, Bakshi-Boyle discloses a method of enabling transmission of unsolicited messages from a server to a client, the client residing on a private computer network having a proxy server between the private computer network and a public computer network, the server transmitting the unsolicited messages over the public computer network, the method comprising transmitting an HTTP-based request to the server via the proxy server to open a persistent connection therewith, the HTTP-based

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request requesting a reply from the server only when the server has messages to send to the client (*The user may request mail service 132 not to push any data. Alternatively, the user may request mail service 132 to push only invalidate notifications. Alternatively, the user may request mail service 132 to push data not more often than a given time interval. Alternatively, the user may request the mail service to push new mail notifications only when a predetermined minimum number of new messages has been received in the user mailbox, and to push invalidate service notification according to some other policy. This is not an exhaustive list of how the user may control the push operation to optimize for the cost and latency parameters. The user issues such requests via the pull path 138 (col. 11, line 65 – col. 12, line 10)).*

22. Claim 14 has similar limitations of claim 7; therefore, it is rejected under the same rationale as in claim 7.

23. Claim 15 has similar limitations of claim 10; therefore, it is rejected under the same rationale as in claim 10.

24. Claim 16 has similar limitations of claim 11; therefore, it is rejected under the same rationale as in claim 11.

25. Claim 17 has similar limitations of claims 11, 3, 7; therefore, it is rejected under the same rationale as in claims 11, 3, 7.

26. Claim 18 has similar limitations of claims 11, 5; therefore, it is rejected under the same rationale as in claims 11, 5.

27. Claim 19 corresponds to the computer readable medium claim of claim 13; therefore it rejected under the same rationale as claim 13.

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28. As to claim 20, Bakshi-Boyle discloses a method of transmitting unsolicited messages via a public computer network to a client residing on a private computer network, the private computer network including a proxy server, the method comprising: receiving an HTTP-based request (*Boyle, stock price quote request*) originating from the client through the proxy server (*Bakshi, Fig. 4, server receiving data request; Boyle, col. 2, line 55 – col. 3, line 40; col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15; col. 22, line 60 – col. 25, line 49; col. 25, line 50- col. 29, line 25*); and parking the HTTP-based request without responding thereto unless a message (*Boyle, alert or notification message*) is generated that needs to be transmitted to the client; and when the message is generated

generating an HTTP-based reply (*Boyle, stock price message*) to the HTTP-based request parked for the client, the HTTP-based reply containing the message therein (*Boyle, col. 2, line 55 – col. 3, line 40; col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15; col. 22, line 60 – col. 25, line 49; col. 25, line 50- col. 29, line 25*); and

transmitting the HTTP-based reply (*Boyle, col. 2, line 55 – col. 3, line 40; col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15; col. 22, line 60 – col. 25, line 49; col. 25, line 50- col. 29, line 25*).

29. As to claim 21, Bakshi-Boyle discloses, receiving a second HTTP-based request containing a message acknowledgement from the client through the proxy server (*Boyle, Fig. 32, 5<sup>th</sup> and 6<sup>th</sup> arrows*); parking the second HTTP-based request (*Boyle, Fig. 32, arrow HOLD ON*).

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30. As to claim 22, Bakshi-Boyle discloses wherein the HTTP-based request includes connection time out period information, and the step of parking the HTTP-based request further comprises:

when the connection time out period expires, generating an HTTP-based reply to the HTTP-based request parked for the client, and transmitting the HTTP-based reply (*Boyle, col. 2, line 55 – col. 3, line 40; col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15; col. 22, line 60 – col. 25, line 49; col. 25, line 50- col. 29, line 25*).

31. Claim 23 corresponds to the computer readable medium claim of claim 20; therefore it rejected under the same rationale as claim 20.

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32. Further references of interest are cited on Form PTO-892, which is an attachment to this action.

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai V. Nguyen whose telephone number is 703-306-0276. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on 703-305-9705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hai V. Nguyen  
Examiner  
Art Unit 2142

*HVN*

*Jack Harvey*  
JACK HARVEY  
SUPERVISOR, PATENT EXAMINER